Specific Resource Concern ID	*Inventory Guidance*	*Minimum 590 Mitigation Standards*	*Plan Documentation Required*
General Concern			
Land on which manure or organic by-products are applied as a plant nutrient source			
All cropland fields receiving manure	• Producer records. • Field-visual inventory. • Current soil test results. • Nutrient content of all sources of applied by-products.	• Assign a risk factor to all fields based on specific concerns listed in this table. • Develop a balanced nutrient budget for N-P-K that takes into account all sources of nutrients including animal manure and organic by-products, waste water, commercial fertilizer, crop residues, legume credits, and irrigation water.	• Documentation of resource concerns in a 590 narrative and field attributes table. • Final nutrient budget based on field inventory and all nutrient inputs. • Record of mitigation practice decisions with narratives and implementation schedule in order to balance the nutrient budget with field risk levels.
I. Fields where runoff of nutrients, pathogens, organics, and sediment are a concern			
I-1 Cropland with potential runoff due to slope			
I-1a. Sheet and rill erosion and nutrient runoff from sloping cropland.	• Field-visual with accurate slope measurements. • Existing crop records. • Soil test results.	• Run RUSLE2 • Plan and apply conservation practices to maintain soil loss levels at T or less. • Enter soil loss into P-index. • Plan and apply management practices to balance nutrient applications with crop needs for each field.	• Document as a resource concern in 590 narrative and field attributes table. • Before and after soil loss levels • Final P-index with nutrient balance results. • Record of mitigation practice decisions with narrative and schedule.
I-2. Cropland with elevated soil test P levels			
I-2a. High phosphorous soils	• Soil test results • Heavy manure application history.	• Enter soil test results into P-index for all fields. • Plan and apply management practices to mitigate medium to very high P-index.	• Document as a resource concern in 590 narrative and field attributes table on a field by field basis. • Final P- index with nutrient balance results. • Record of mitigation practice decisions with narrative and schedule.
I-3 Cropland with potential runoff to perennial streams/surface waters			
I-3a. Predominate slope > 0% to perennial stream, or other permanent surface water body and no flooding onto cropland.	• Field visual with topo/soil/ aerial map support.	• 100 ft. manure spreading setback unless buffered (590 G) • Enter distance from stream to field edge into P index • Plan and apply management practices to mitigate medium to very high P-index. • If buffers used must meet NRCS 393(s) or 391 standard.	• Document as a resource concern in 590 narrative and field attributes table. • Plan map with key showing a stream location with required manure spreading setback and any planned buffer practices. • Final P-index with nutrient balance results. • Record of mitigation practice decisions with narrative and schedule.

Specific Resource Concern ID	*ID Guidance*	*Minimum 590 Mitigation Standards*	*Plan Documentation Required*
General Resource Concern			
I-3 Cropland with potential runoff to perennial streams/surface waters (continued)			
I-3b. Little or no slope to a perennial stream but all or a significant portion of the field floods frequently or occasionally.	• Field visual with soil flood rating and producer verification	• 100 ft. manure spreading setback unless buffered (590 G). • Enter distance from stream to field edge into P index • Enter flood frequency criteria into P Index • Plan and apply management practices to mitigate medium to very high P-index. • If buffers are used must meet NRCS 393(s) or 391.	• Document as a resource concern in 590 narrative and field attributes table. • Plan map with key showing location of stream, manure set back, and buffers on plan map. • Final P-index with nutrient balance results. • Record of mitigation practice decisions with narrative and schedule.
I-3c. Field is adjacent to perennial stream but field slopes away from stream, does not flood or rarely floods, and no other connectivity is observed.	• Field visual with Topo/soil map support.	• For P index flow distance is > 300 ft. • Evaluate Field for any other resource concerns.	• Plan map with key showing location of stream on plan map. • Final P-index with nutrient balance results. • Record of mitigation practice decisions with narrative and schedule from other resource concerns if applicable.
I-4. Cropland with potential runoff to intermittent streams/surface waters			
I-4a. slope > 0% to an intermittent stream	• Field visual with topo/soil/ aerial map support	• 20 ft. manure spreading during non-growing season setback unless incorporated. • Enter distance from stream to field edge into P index. • Plan and apply management practices to mitigate medium to very high P-index.	• Document as a resource concern in 590 narrative and field attributes table. • Plan map with key showing location of stream, manure setback and planned buffer practices. • Final P-index with nutrient balance results. • Record of mitigation practice decisions with narrative and schedule.
I-4b. Field is level and/or is sloping to an intermittent stream and a significant part or all of the field floods frequently or occasionally.	• Field visual with soil flood rating and producer verification	• 20 ft. manure spreading setback during non-growing season unless incorporated • Enter distance from stream to field edge into P-index. • Enter flood frequency into P Index. • Plan and apply management practices to mitigate medium to very high P-index.	• Document as a resource concern in 590 narrative and field attributes table. • Plan map with key showing location of stream. • Final P-index with nutrient balance results. • Record of mitigation practice decisions with narrative and schedule.

Specific Resource Concern ID	*ID Guidance*	*Minimum 590 Mitigation Standards*	*Plan Documentation Required*
General Resource Concern			
I-4. Cropland with potential runoff to intermittent streams/surface waters (continued)			
I-4c. Field is adjacent to an intermittent stream but field has 0% slope or slopes away from stream, does not flood or rarely floods, and no other connectivity is observed.	• Field visual with Topo map support	• For P index stream distance is > 200 ft. • Evaluate Field for any other resource concerns	• Plan map with key showing location of stream. • Final P-index with nutrient balance results. • Record of mitigation practice decisions with narrative and schedule if required from other factors.
I-5. Cropland with identified concentrated flow areas in or near the field (Concentrated flow defined if evidence of yearly erosion of a 6 in deep cut when row cropped or other evidence?)			
I-5a. Concentrated flow leaving field and entering intermittent stream flow >200 ft. or perennial stream flow > 300 ft. from field boundary	• Field visual with topo map and farmer verification.	• Plan and apply structural conservation practices that will collect and divert flows to a stable outlet and eliminate surface concentrated flow up to a ten year storm event. And/or • Apply permanent vegetative conservation practices that will stabilize and treat concentrated surface flow in conjunction with a 20 ft. Manure setback from center of concentrated flow. • Enter concentrated flow as a P –index factor. • Plan and apply management practices to mitigate medium to very high P-index. • Stream distance for P-index is > 200 ft or 300 ft.	• Document as a resource concern in 590 narrative and field attributes table. • Plan map with key showing location of stream. • Plan map with a key showing location of concentrated flow with planned practices and any required manure spreading setback. • Final P-index with nutrient balance results. • Record of mitigation practice decisions with narrative and schedule.

H S A or Resource Concern ID	*ID Guidance*	*Minimum 590 Mitigation Standards*	*Plan Documentation Required*
General Resource Concern			
I-5. Cropland with identified concentrated flow areas in or near the field (continued)			
I-5b. Concentrated flow leaving field and entering an intermittent stream flow < 200 ft. or perennial stream flow < 300 ft. from field boundary.	• Field visual with topo map and farmer verification.	• Plan and apply structural conservation practices that will collect and divert flows to a stable outlet and eliminate surface concentrated flow up to a ten year storm event. And/or • Plan and apply permanent vegetative conservation practices that will stabilize and treat concentrated surface flow in conjunction with a 20 ft. Manure setback from center of concentrated flow. • Enter concentrated flow as a P –index factor. • Enter distance from intermittent/perennial stream to field boundary in P-index • Plan and apply management practices to mitigate medium to very high P-index.	• Document as a resource concern in 590 narrative and field attributes table. • Plan map with key showing location of stream. • Plan map with a key showing location of concentrated flow with planned practices and any required manure spreading setback. • Final P-index with nutrient balance results. • Record of mitigation practice decisions with narrative and schedule.
I-5c. Concentrated flow within field and not leaving, or if leaving field not connected to any stream-flow or surface water feature.	• Field-visual with map verification	• Document any ephemeral gully and/or classic gully soil loss. • Plan/apply practices to protect soil resources.	• Document as a resource concern in plan narrative and field attributes table. • Plan map with a key showing location of concentrated flow with planned practices to stabilize area. • Final P-index with nutrient balance results. • Record of mitigation practice decisions with narrative and schedule.

I-6. Cropland sloping to a road ditch			
I-6a. Predominate slope to a low gradient road ditch with stable, vegetated channel with > 200 ft to intermittent stream or > 300 ft. to a perennial stream.	• Field –visual with map support • Some treatment occurring through vegetated channel.	• 20 ft. manure spreading setback from center of road ditch. • Enter concentrated flow as a P–index factor. • Enter stream distance in P-Index as > 200 or 300 ft. • Plan and apply management practices to mitigate medium to very high P-index.	• Document as a resource concern in 590 narrative and field attributes table. • Plan map with a key showing location of road ditch with required manure spreading setback. • Final P-index with nutrient balance results. • Record of mitigation practice decisions with narrative and schedule.
I-6b. Predominate slope to a low gradient road ditch with vegetated channel with < 200 ft. to intermittent, or < 300 ft. to a perennial stream.	• Field –visual with supporting map documentation • Some treatment occurring through vegetated channel	• 20 ft manure spreading setback from road ditch • Enter distance from intermittent stream or perennial stream to stable, vegetated road ditch into P-index. • Plan and apply management practices to mitigate medium to very high P-index.	• Document as a resource concern in 590 narrative and field attributes table. • Plan map with a key showing location of streams and road ditch with required manure spreading setback. • Final P-index with nutrient balance results. • Record of mitigation practice decisions with schedule.
I-6c. Predominate slope to a high and/or low gradient road ditch with poor or no vegetative channel cover leading to an intermittent or perennial stream	• Field –visual with map support.	• 20 ft. manure spreading setback from top of bank of channel. • Enter distance in feet from top of bank of road ditch to field into P index. • Plan and apply management practices to mitigate medium to very high P-index.	• Document as a resource concern in 590 narrative and field attributes table. • Plan map with a key showing location of road ditch with required manure spreading setback. • Final P-index with nutrient balance results. • Record of mitigation practice decisions with narrative and schedule.

H S A or Resource Concern ID	*ID Guidance*	*Minimum Mitigation Standards*	*Plan Documentation Required*
General Resource Concern			
I-7 Cropland with slope to a waterway such as a drainage ditch, diversion, or grassed waterway			
I-7a. Predominate field slope to a well maintained, vegetated drainage channel < 200 ft. to a intermittent or < 300 ft. to perennial stream or stream flow conditions.	• Field -Visual with map support. • Assume some treatment occurring through vegetated channel	• 20 ft. manure setback from centerline of waterway. • Enter distance from where waterway enters a stream or transitions to stream-flow conditions to edge of field for P-index calculation. • Plan and apply management practices to mitigate medium to very high P-index.	• Document as a resource concern in 590 narrative and field attributes table. • Plan map with a key showing location of waterways, streams, and surface inlets with required manure spreading setbacks. • Final P-index with nutrient balance results. • Record of mitigation practice decisions with narrative and schedule.
I-7b. Predominate field slope is to a well maintained, vegetated channel > 200 ft. to an intermittent or > 300 ft. to perennial stream flow.	• Field -Visual with map support • Some treatment occurring through grass channel	• 20 ft. manure setback from centerline of waterway. • Enter distance from where waterway enters a stream or transitions to stream-flow conditions to edge of field as > than 200 or 300 ft.	• Document as a resource concern in 590 narrative and field attributes table. • Plan map with a key showing location of waterways, streams, and surface inlets with required manure spreading setbacks. • Final P-index with nutrient balance results. • Record of mitigation practice decisions with narrative and schedule.
I-7c. Predominate field slope is to a poorly maintained channel and/or channel with higher flows.	• Field -Visual with map support. • Little or no chance of treatment. • Define as an intermittent stream	• 20 ft. manure spreading setback from edge of waterway • Enter distance from waterway to field into P index. • Plan and apply management practices to mitigate medium to very high P-index.	• Document as a resource concern in 590 narrative and/or field attributes table. • Plan map with a key showing location of waterways, streams, and surface inlets with required manure spreading setbacks. • Final P-index with nutrient balance results. • Record of mitigation practice decisions with narrative and schedule.

H S A or Resource Concern ID	*ID Guidance*	*Minimum Mitigation Standards*	*Plan Documentation Required*
General Resource Concern			
I-8. Fields containing a surface inlet or WASCOB			
I-8a. Field contains a well maintained, buffered surface inlet or WASCOB.	Field -visual with supporting map, case file and producer information.	• 20 ft. manure setback from inlet. • P-index?	• Document as a resource concern in 590 narrative and field attributes table. • Plan map with a key showing location of surface inlets with required manure spreading setbacks. • Final P-index with nutrient balance results. • Record of mitigation practice decisions with narrative and schedule.
I-8b. Field contains a poorly maintained and/or un-buffered surface inlet or WASCOB.	Field -visual with supporting map, case file and producer information.	• Plan/apply practices to buffer inlets. • 20 ft. manure setback from inlet. • P-index?	• Document as a resource concern in 590 narrative and field attributes table. • Plan map with a key showing location of surface inlets with required manure spreading setbacks and planned conservation practices. • Final P-index with nutrient balance results. • Record of mitigation practice decisions with narrative and schedule.
I-9. Cropland that contains wet spots, seeps or swales contributing to runoff			
I-9a. Seeps, swales, or wet spots discharging water from field as intermittent concentrated flow beyond storm events.	• Field-visual with map support	• 20 ft manure setback from edge of swale, seep, or wet area. • Enter concentrated flow into P-Index. • Plan and apply management practices to mitigate medium to very high P-index.	• Document as a resource concern in 590 narrative and field attributes table. • Plan map with a key showing location of seeps, swales, and wet spots with required manure spreading setbacks. • Final P-index with nutrient balance results. • Record of mitigation practice decisions with narrative and schedule.

H S A or Resource Concern ID	*ID Guidance*	*Minimum Mitigation Standards*	*Plan Documentation Required*
General Resource Concern			
I-10 Fields with subsurface artificial drainage			
I-10a. Fields with significant artificial drainage discharging to un-vegetated channels.	• Field-visual • Producer verification. • Case file history	• Enter artificial drainage into P-index. • Plan and apply management practices to mitigate medium to very high P-index. • Other management practices?	• Document as a resource concern in 590 narrative and field attributes table. • Plan map with a key showing location of tile outlets and any required manure setbacks. • Tile system as-builts if available. • Final P and NL index with final nutrient balance results. • Record of mitigation practice decisions with narrative and schedule
I-10b. Fields with significant artificial drainage discharging to a channel with at least 200' of well established vegetation for treatment.	• Field-visual • Producer verification. • Case file history	• Enter artificial drainage into P-index? • Other management practices?	• Document as a resource concern in 590 narrative and field attributes table. • Plan map with a key showing location of tile outlets and any required manure setbacks. • Tile system as-builts if available. • Final P and NL index with final nutrient balance results. • Record of mitigation practice decisions with narrative and schedule

H S A or Resource Concern ID	*ID Guidance*	*Minimum Mitigation Standards*	*Plan Documentation Required*
General Resource Concern			
II. Fields where movement of nutrients and pathogens to groundwater is a concern			
II-1 Fields with nearby wells or springs			
II-1a. Field is within 100 ft of a well or spring	Field-visual with producer/ landowner verification	• 100 ft. manure spreading setback in all directions from well or spring. • Plan and apply management practices to mitigate medium to very high NLI	• Document as a resource concern in 590 narrative and/or field attributes table. • Plan map with key showing well/spring location with required manure spreading setback. • NL-index with nutrient balance results. • Record of mitigation practice decisions with narrative and schedule.
II-2. Fields with isolated wet spots seeps or swales that are not associated with runoff.			
II-2a. Isolated seeps, swales, or wet spots serving as groundwater recharge areas.	• Field-visual with map support	• 20 ft manure setback from edge of swale, seep, or wet area. • Plan and apply management practices to mitigate medium to high NLI	• Document as a resource concern in 590 narrative and field attributes table. • Plan map with a key showing location of seeps, swales, and wet spots with required manure spreading setbacks. • NL-index with nutrient balance results. • Record of mitigation practice decisions with narrative and schedule.
II-3. Fields with potential to leach nitrogen			
II-3a. Moderate to Highly permeable soils	• Soil Survey info. • NLI	• Calculate NLI for all fields. • Plan and apply management practices to mitigate medium to high NLI fields.	• Document as a resource concern in 590 narrative and field attributes table on a field by field basis. • NLI with nutrient balance results. • Record of mitigation practice decisions with narrative and schedule.
II-4. Fields on bedrock controlled landforms			
II-4a. Bedrock very shallow to deep. (surface to 60 in.)	• Soil survey info. • Field visual with producer verification	• Plan and apply management practices to mitigate as if a very high NLI?	• Document as a resource concern in 590 narrative and field attributes table on a field by field basis. • NLI with nutrient balance results. • Record of mitigation practice decisions with narrative and schedule.